TARIS, E. *La Russie et ses richesses.* (Paris: P. Roger & Cie. 1912.)

WEBSTER, H. *Rest days: a sociological study.* University of Nebraska studies, XI, 1-2. (Lincoln: University of Nebraska. 1911. Pp. 158.)

An exhaustive and scholarly study of holy days, "evil days" and rest days among the primitive peoples. Includes an investigation of the origin of the Hebrew Sabbath.

WOLF, J. *Die Volkswirtschaft der Gegenwart und Zukunft.* (Leipzig: A. Deichert. 1912. Pp. 335. 6.50 m.)

ZIMMERN, A. E. *The Greek commonwealth: politics and economics in fifth-century Athens.* (Oxford: The Clarendon Press. 1911. Pp. 454.)

——— *The Baltimore book; a resumé of the commercial, industrial and financial resources, municipal activities and general development of the city of Baltimore.* By WILBUR F. COYLE, city librarian. (Baltimore: Summers Printing Co. 1912. Pp. 130.)

——— *China, social and economic conditions.* Annals, Vol. XXXIX. (Philadelphia: Am. Acad. Pol. & Soc. Sci. 1912. Pp. 179-220.)

Includes "Causes of Chinese emigration," by Pyau Ling; "China: geography and resources," by G. B. Roorbach; "American commercial interests in Manchuria," by D. G. Munro.

Agriculture, Mining, Forestry, and Fisheries

Principles of Rural Economics. By THOMAS NIXON CARVER. (Boston: Ginn and Company. 1911. Pp. xviii, 386. $1.30.)

This book contains six chapters. The first deals with ways of getting a living, especially with farming; here economic and uneconomic methods are contrasted. Uneconomic methods of getting a living "include all those occupations in which one's success depends upon one's power to destroy, to injure, or to deceive"; economic methods are classified as primary industries, secondary industries, and personal services. Farming is, of course, put at the top of the list of primary industries. The second chapter (pp. 29-116) is devoted to an historical sketch of modern agriculture; the third (pp. 117-222) contains an elaborate discussion of the economic characteristics of the factors of production. Especial attention is given to the law of diminishing returns and to methods of economizing land, labor, and capital. The fourth chapter, containing 65 pages, is devoted to management as a factor in agricultural production. It includes a treatment of the economic principle of farm organization and management, of great

interest to the agricultural student. Some of the topics discussed are: ownership and tenancy; cash or share tenancy; salaried managers; what to produce; staple product *vs.* specialties; reasons for diversification; competing and noncompeting crops; large, medium, or small farming; dear *vs.* cheap labor; the kind of power to use, *e. g.*, horses *vs.* oxen; tools; buildings; scientific management; credit; problems of buying and selling. The fifth chapter (pp. 289-333) contains a brief statement of the theory of distribution. The sixth and final chapter is devoted to the social problems of the country.

This volume is marked by that lucidity of style so characteristic of Professor Carver. It will doubtless be widely used as a textbook in courses in agricultural economics, particularly in those institutions where the course is offered not to the specialist in agriculture, but to general students. The viewpoint is primarily social rather than that of the farmer. To quote from the preface, "It emphasizes the public and social aspect of the problem somewhat more, and the business aspect somewhat less, than do most treatises on this subject." The work represents a marked advance over Professor Carver's earlier book, *The Distribution of Wealth*, especially in tempering the results of logic by more careful adjustments of the hypothesis to the conditions which obtain in the world of economic life. Some of the old positions are, apparently, abandoned. The differential theory of profits is accepted.

This readjustment from a system of logical reasoning, based largely upon the assumptions of the classical economists, to a scientific analysis of modern economic forces, leads to some confusion of thought. For example, on page 299 the Ricardian theory of rent is stated in the usual form with the comment, "It is, beyond all question, a true theory, the only question being whether it is so significant as many economists have supposed"; whereas on the next page a paragraph opens with the statement, "One special difficulty with the differential theory of rent, as commonly stated, is that the same piece of land is worth different sums to different men."

It is hard for the reviewer to understand the author's position on the subject of the proportions in which the factors of production should be combined. Carver's method of applying labor and capital to land until the product attributable to the last increment is just enough to cover this additional cost of labor and capital,

(pp. 221-222) which would yield maximum profits per acre, does not seem consistent with the statement (p. 175), "A large product per acre is desirable *only* when it means a large product per man, and never otherwise"; and to the question, "Shall we economize labor or land?" the reply is given, "It cannot be emphasized too much that the object of economizing labor, as stated in preceding pages, is to secure the maximum product per unit of labor and not to secure the maximum product per unit of land" (p. 188). What Professor Carver has in mind may be entirely correct, but the subject is not sufficiently elaborated to make entirely clear what method he would use in determining the proportions in which land, labor, and equipments should be used. Relying on the author's treatment in *Distribution of Wealth*, it may be fair to assume that he means, specifically, that labor and capital should be applied to land in such quantities that the product attributable to the last increment is just enough to pay the cost of that increment at current rates, without any differential profit for the farmer, and without regard to the fact that not all farm undertakings on the same farm are equally profitable.

The reviewer admits that when considering how much labor and capital to associate with a given entrepreneur who wishes to put a given amount of his personal effort into the business, it may be proper to think of succeeding increments of a properly constituted composite unit of land, labor, and equipments being brought under his management until the product attributable to the last increment no longer adds anything to the total profit. This would give maximum profits for the entrepreneur. This relates to the size of the business unit under a given management or to the proportions between managerial activity and the managed factors of production, but does not apply to the problem of the amount of labor and capital to employ upon a given area of land.

In determining the amount of labor and capital which should be applied to a given acre of land, the method of applying labor and capital to land until the product attributable to the last increment is just enough to pay the cost of the labor and capital, is misleading for the simple reason that maximum profits per acre is inconsistent with maximum profits per unit of managerial activity in all cases except that of the marginal entrepreneur who is assumed to make no profit.

To illustrate, take the entrepreneur who, because of his super-

ior ability, is able to make, on the average, a differential profit of ten per cent upon the labor and capital he manages. It is obvious that if he took no account of this profit and applied labor and capital to a given acre of land until the product attributable to the last increment is just enough to pay for the labor and capital, he would not be getting ten per cent profit upon some of the later increments; whereas, if he ceased applying labor and capital to this acre at the point where his profits per unit of labor and capital reached the maximum average per unit for the total investment on that acre, the other labor and capital (which would be required to increase the intensity of culture to the point where the product attributable to the last increment would just pay for the labor and capital) can be used on other land with greater profit than on the given acre. It is necessary, therefore, that the prospective differential profits be added to the cost of the labor and capital in order to make Carver's method accurate, for extra labor and capital per acre in a given line requires extra managerial activity.

Furthermore, the profits on the varied enterprises are different in a given year, and the profits on a given enterprise vary from year to year, due to weather conditions and to market changes. Hence this profit can never be known in advance. Only estimates are available and the average is misleading for any given case. Professor Carver's method of ascertaining the proper degree of intensity of culture is, therefore, unusable even when adjusted to correspond to the fact of differential profit. In *The Distribution of Wealth* Carver did not admit differential profits, hence his theory of the proportions was logically unassailable even if of no use, but in *Rural Economics* differential profits are granted: hence the theory of the proper proportions of the factors requires modification in order to stand the test of logic.

The solution of this problem seems to lie along the line of seeking the most profitable use for the labor and capital at every turn throughout the year. Sometimes this will yield much more, sometimes less than the cost of the labor and capital, but if at all times the opportunity with the maximum net return per unit of expenditure which demands managerial activity is availed of, the total profit will reach the maximum for the year. This principle, when applied to the application of labor and capital to land, will doubtless result in applying sometimes more and

sometimes less, but usually less to a given area than is called for by Professor Carver's rule of applying more and more until the product attributable to the last increment is just enough to pay the cost of the increment of labor and capital. Cost accounting gives the basis for the practical working out of the problem.

In the application of economic principles to agricultural problems, the classical theories are weak at many points and require mending. The long held theory of rent and the current theory of intensity of culture, can be picked to pieces by any good class of students of agriculture. What is needed is a more scientific analysis of facts to form a basis of economics as an applied science. Notwithstanding this needed criticism, this excellent work on rural economics stands without an equal in the English language and is not second to the best French work on the subject, *Economie Rurale*, by Jouzier.

HENRY C. TAYLOR.

University of Wisconsin.

Report of the Commissioner of Corporations on Water-Power Development in the United States. (Washington: Government Printing Office. 1912. Pp. 211, 7 charts, 9 maps.)

This significant report consists of a summary (34 pp.) and a detailed report in three parts: Physical conditions and economic aspects of water-power (58 pp.); Concentration of ownership and control (96 pp.); and Water-power and the public (20 pp.). It is concerned with developed "commercial" power—power generated for sale—and presents the most complete and reliable information on the subject now available.

The Bureau of Corporations computed in June, 1911, a total developed water-power of 6,000,000 h. p., representing: "commercial" power, 2,961,549 h. p.; "manufacturing" power, 1,054,578 h. p.; total power developments of less than 1,000 h. p. each, 2,000,000 h. p. This 6,000,000 h. p. represents about one fourth the estimate minimum and one eighth the estimated maximum potential h. p. of the United States.

The Bureau finds a marked geographical concentration of developed water-power. Nearly fifty per cent of the "commercial" power is in five states (Cal., 14; N. Y., 13; Wash., 10; Penn., 6; S. C., 5) and nearly ninety per cent of the "manufacturing" power is in New England and four additional states (N. Y., 30; New England states, 36; Minn. and Wis., 17; S. C., 5).